ELSEVIER

Agriculture, Ecosystems and Environment 49 (1994) 317–319

Agriculture Ecosystems & Environment

Contents of *Agriculture, Ecosystems & Environment*, Volume 49

Vol. 49 No. 1 **May 1994**

Special Issue: Bacillus thuringiensis

Preface 1

Global view of present and future markets for Bt products
I. Watkinson (North Chicago, IL, USA) 3
History of *Bacillus thuringiensis*
R.J. Milner (Canberra, A.C.T., Australia) 9
Host spectrum of *Bacillus thuringiensis*
J. Drummond and D.E. Pinnock (Glen Osmond, S.A., Australia) 15
Bacillus thuringiensis toxins and mode of action
D. Cooper (Glen Osmond, S.A., Australia) 21
Molecular biology of *Bacillus thuringiensis*
A.H. Broadwell (Auckland, New Zealand) 27
Commercial production and formulation of *Bacillus thuringiensis*
J.E. Bryant (Des Plaines, IL, USA) 31
Bacillus thuringiensis — product standardisation
I. Watkinson (North Chicago, IL, USA) 37
Present use of, and problems with, *Bacillus thuringiensis* in Australia
R.E. Teakle (Indooroopilly, Qld., Australia) 39
Present use of, and problems with, *Bacillus thuringiensis* in New Zealand
P. J Wigley and C.N. Chilcott (Auckland, New Zealand) 45
Opportunities for finding new *Bacillus thuringiensis* strains
C.N. Chilcott and P.J. Wigley (Auckland, New Zealand) 51
The use of *Bacillus thuringiensis* for control of pests of livestock
D.E. Pinnock (Glen Osmond, S.A., Australia) 59
Application strategies for *Bacillus thuringiensis*
J.E. Bryant (Chicago, IL, USA) 65
Use of *Bacillus thuringiensis* in integrated control, especially on cotton pests
N.W. Forrester (Myall Vale, N.S.W., Australia) 77
Expression of *Bacillus thuringiensis* insecticidal protein genes in transgenic crop plants
D. Llewellyn, Y. Cousins, A. Mathews, L. Hartweck and B. Lyon (Canberra, A.C.T., Australia) 85
Problems of insect resistance to *Bacillus thuringiensis*
W.H. McGaughey (Manhattan, KS, USA) 95
Microbial ecology of sheep fleece
E.W. Lyness, D.E. Pinnock and D.J. Cooper (Glen Osmond, S.A., Australia) 103

Vol. 49 No. 2 June 1994

Recovery of nitrogen by spring barley following incorporation of ^{15}N-labelled straw and catch crop material
I.K. Thomsen (Tjele, Denmark) and E.S. Jensen (Roskilde, Denmark) 115
Energetics of baled alfalfa hay production in northern Greece
C.A. Tsatsarelis and D.S. Koundouras (Thessaloniki, Greece) 123
Below-ground interactions between a seedling soybean and pre-established soybean plant with and without mycorrhizal fungi. 1. Plant biomass, root growth, and mycorrhizal colonization
R.L. Franson, C. Hamel, D.L. Smith and G.J. Bethlenfalvay (Albany, CA, USA) 131
Growth and nutrient accumulation by *Pinus caribaea* on three savanna sites in northern Nigeria
O. Kadeba (Akure, Nigeria) 139
Do semi-natural patches enrich crop fields with predatory epigean arthropods
A. Kajak and J. Łukasiewicz (Łomianki, Poland) 149
Some animal-related factors influencing the cycling of nitrogen in mixed farming systems in sub-Saharan Africa
D.L. Romney, P.J. Thorne and D. Thomas (Chatham, UK) 163
Sulphur cycling and its implications on sulphur fertilizer requirements of grazed grassland ecosystems
M.L. Nguyen (Canterbury, New Zealand) and K.M. Goh (Christchuch, New Zealand) 173
Forestry related land use in the West Usambara mountains, Tanzania
A.R.S. Kaoneka (Morogoro, Tanzania) and B. Solberg (Aas, Norway) 207

Book reviews
Water transport in plants 217
Biological diversity 218

Announcement from the Publisher 221

Contents of *Applied Soil Ecology*, Vol. 1, No. 1 222

Vol. 49 No. 3 July 1994

Composition of the vesicular-arbuscular mycorrhizal fungi population in an old meadow as affected by pH, phosphorus and soil disturbance
C. Hamel (St-Hyacinthe, Que., Canada), Y. Dalpé (Ottawa, Ont., Canada), C. Lapierre (Sainte-Foy, Que., Canada), R.R. Simard (Ste-Anne-de-Bellevue, Que., Canada) and D.L. Smith (Sainte-Foy, Que., Canada) 223
Impact of greater sandhill cranes foraging on corn and barley crops
D.E. McIvor and M.R. Conover (Logan, UT, USA) 233
Chemical characteristics of soil after 40 years of continuous maize cultivation
R. Riffaldi, A. Saviozzi, R. Levi-Minzi and F. Menchetti (Pisa, Italy) 239
Comparison of the weedy vegetation in old-fields and crop fields on the same site reveals that fallowing crop fields does not result in seedbank buildup of agricultural weeds
E.P. Odum, T.Y. Park and K. Hutcheson (Athens, GA, USA) 247
Life-cycle analysis of biodegradable packing materials compared with polystyrene chips: the case of popcorn
O. Jolliet (Tänikon, Switzerland), K. Cotting, C. Drexler and S. Farago (Bern, Switzerland) 253
Vegetation effects on soil solution composition and evapotranspiration—potential impacts of set-aside policies
J. Magid (Frederiksberg, Denmark), N. Christensen (Silkeborg, Denmark) and E. Skop (Roskilde, Denmark) 267
Sustainability in Chinese agriculture: challenge and hope
C. Yunlong (Beijing, People's Republic of China) and B. Smit (Guelph, Ont., Canada) 279
Predicting the effects of agricultural changes in central Spanish croplands on seed-eating overwintering birds
M. Díaz and J.L. Tellería (Madrid, Spain) 289

Review paper
Sustainability in agriculture: a general review
C. Yunlong (Beijing, People's Republic of China) and B. Smit (Guelph, Ont., Canada) 299

Book reviews
Management of ecosystems 309
Grasslands 310
Plant pathology 312
Greenwar 313

Author Index 315

Contents of *Agriculture, Ecosystems and Environment*, Vol. 49 No. 3 317

Contents of *Applied Soil Ecology*, Vol. 1, No. 1 320

Announcement from the Publisher 321